

SUPPLEMENTARY DATA

**Supplementary Table 1. Age-standardized baseline characteristics according to quintiles of animal low-carbohydrate-diet scores among women with a history of GDM<sup>a,b</sup>**

| Characteristic                           | Quintiles of animal low-carbohydrate-diet score |               |               |               |               |
|--|---|---------------|---------------|---------------|---------------|
|  | Q1  | Q2            | Q3            | Q4            | Q5            |
| Number of participants                   | 940   | 827           | 915           | 953           | 867           |
| Low carbohydrate intake (%) <sup>c</sup> | 0.3   | 1.2           | 2.5           | 11.8          | 32.0          |
| Age (years)                              | 38.5(4.7)                                       | 38.1(4.7)     | 37.8(4.7)     | 37.7(4.7)     | 37.8(4.9)     |
| Age at first birth (year)                | 27.9(5.0)                                       | 27.6(4.6)     | 27.7(4.7)     | 27.1(4.7)     | 27.2(4.9)     |
| Parity >1 (%)                            | 78.3  | 81.0          | 81.9          | 84.0          | 79.6          |
| Race, white (%)                          | 90.0  | 92.3          | 93.3          | 94.7          | 93.3          |
| Family history of diabetes (%)           | 25.3  | 23.7          | 24.9          | 28.4          | 31.8          |
| Current oral contraceptives use (%)      | 8.1   | 8.5           | 8.7           | 7.7           | 8.4           |
| Current smoking (%)                      | 10.4  | 8.2           | 9.8           | 11.8          | 14.8          |
| Alcohol (g/d)                            | 2.0(3.9)  | 2.2(3.9)      | 2.4(5.3)      | 2.8(5.6)      | 2.1(4.5)      |
| BMI (kg/m <sup>2</sup> )                 | 25.1(5.3)                                       | 26.0(5.8)     | 26.9(6.1)     | 27.3(6.1)     | 28.9(6.7)     |
| Physical activity (MET-hours/week)       | 19.7(22.6)                                      | 17.3(19.8)    | 17.1(21.0)    | 17.1(22.2)    | 15.2(18.9)    |
| Total calories (kcal/d)                  | 1967.7(574.6)                                   | 1967.7(563.2) | 1925.7(550.5) | 1883.5(550.1) | 1792.9(550.3) |
| Carbohydrates (% energy)                 | 57.3(6.0)                                       | 51.9(5.0)     | 49.4(4.9)     | 46.5(5.3)     | 42.2(6.3)     |
| Total protein (% energy)                 | 16.9(2.8)                                       | 18.7(3.0)     | 19.5(3.0)     | 20.1(2.9)     | 21.9(3.1)     |
| Animal protein (% energy)                | 11.1(2.9)                                       | 13.5(2.9)     | 14.4(3.0)     | 15.2(3.0)     | 17.4(3.3)     |
| Vegetable protein (% energy)             | 5.8(1.4)  | 5.3(1.1)      | 5.1(0.9)      | 4.9(0.9)      | 4.5(0.9)      |
| Total fat (% energy)                     | 27.5(5.1)                                       | 30.5(4.9)     | 32.1(4.7)     | 33.9(5.1)     | 36.2(5.2)     |
| Animal fat (% energy)                    | 13.3(3.6)                                       | 16.6(3.3)     | 17.9(3.2)     | 19.7(3.6)     | 22.8(4.4)     |
| Vegetable fat (% energy)                 | 14.2(4.3)                                       | 14.0(4.1)     | 14.2(4.2)     | 14.2(4.2)     | 13.4(3.8)     |
| SFA (% energy)                           | 9.3(2.1)  | 10.6(2.0)     | 11.3(2.0)     | 12.1(2.1)     | 13.1(2.3)     |
| MUFA (% energy)                          | 10.5(2.3)                                       | 11.8(2.3)     | 12.3(2.2)     | 13.0(2.3)     | 13.9(2.3)     |
| PUFA (% energy)                          | 5.2(1.4)  | 5.4(1.2)      | 5.7(1.3)      | 5.8(1.4)      | 5.9(1.4)      |
| Trans fat (% energy)                     | 1.4(0.5)  | 1.6(0.6)      | 1.7(0.6)      | 1.7(0.6)      | 1.8(0.6)      |
| Cholesterol (mg/d) <sup>d</sup>          | 189.9(53.1)                                     | 230.6(54.7)   | 246.3(55.4)   | 266.1(57.8)   | 304.7(78.3)   |
| Total fiber (g/d) <sup>d</sup>           | 20.9(6.6)                                       | 19.1(4.9)     | 18.2(4.4)     | 17.5(4.3)     | 16.2(4.0)     |
| Glycemic index <sup>d</sup>              | 54.8(3.0)                                       | 54.0(3.0)     | 53.7(3.2)     | 53.3(3.2)     | 53.0(3.9)     |
| Glycemic load <sup>d</sup>               | 141.3(18.7)                                     | 126.0(15.5)   | 119.1(14.9)   | 111.8(15.4)   | 101.5(18.4)   |
| Heme iron (mg/d) <sup>d</sup>            | 0.8(0.3)  | 1.1(0.3)      | 1.1(0.3)      | 1.3(0.3)      | 1.5(0.4)      |
| Red meat (servings/d)                    | 0.7(0.5)  | 1.0(0.6)      | 1.0(0.6)      | 1.2(0.6)      | 1.3(0.7)      |
| Poultry (servings/d)                     | 0.4(0.3)  | 0.4(0.3)      | 0.5(0.3)      | 0.5(0.3)      | 0.6(0.4)      |
| Fish (servings/d)                        | 0.2(0.2)  | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.2)      |
| Eggs (servings/d)                        | 0.2(0.2)  | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.2)      | 0.3(0.3)      |
| Dairy (servings/d)                       | 2.8(2.4)  | 2.8(2.1)      | 2.9(2.1)      | 2.7(1.9)      | 2.7(2.0)      |
| Fruits (servings/d)                      | 1.6(1.2)  | 1.4(0.9)      | 1.3(0.8)      | 1.1(0.8)      | 0.9(0.7)      |
| Vegetables (servings/d)                  | 4.0(2.4)  | 3.7(2.1)      | 3.5(2.0)      | 3.4(1.9)      | 3.2(1.9)      |
| Nuts (servings/d)                        | 0.3(0.4)  | 0.3(0.4)      | 0.3(0.4)      | 0.3(0.3)      | 0.2(0.3)      |
| Legumes (servings/d)                     | 0.5(0.4)  | 0.4(0.3)      | 0.4(0.3)      | 0.4(0.3)      | 0.4(0.3)      |
| Whole grains (servings/d)                | 1.3(1.1)  | 1.2(1.0)      | 1.1(1.0)      | 1.0(0.9)      | 0.8(0.8)      |
| SSBs (servings/d)                        | 0.8(1.3)  | 0.6(0.9)      | 0.4(0.7)      | 0.3(0.6)      | 0.2(0.4)      |

Abbreviations: BMI, body mass index; GDM, gestational diabetes mellitus; MET, metabolic equivalent task; MUFA, monounsaturated fatty acids; PUFA, polyunsaturated fatty acids; Q, quintile; SFA, saturated fatty acids; SSBs, sugar-sweetened beverages.

<sup>a</sup> Baseline was defined as 1991 for prevalent GDM and the year of the index pregnancy for incident GDM.

<sup>b</sup> Values are means (SD) unless otherwise specified. The baseline characteristics of the cohort were age adjusted according to 5-year age groups by direct standardization to the entire cohort.

<sup>c</sup> Defined as carbohydrate intake < 40% of energy.

<sup>d</sup> Value is energy-adjusted using the residual method.

All comparisons across quintiles are significant except multiparity (parity >1) and current oral contraceptives use.

SUPPLEMENTARY DATA

**Supplementary Table 2. Age-standardized baseline characteristics according to quintiles of vegetable low-carbohydrate-diet scores among women with a history of GDM<sup>a,b</sup>**

| Characteristic                           | Quintiles of vegetable low-carbohydrate-diet score |               |               |               |               |
|--|--|---------------|---------------|---------------|---------------|
|  | Q1   | Q2            | Q3            | Q4            | Q5            |
| Number of participants                   | 782  | 1049          | 849           | 812           | 1010          |
| Low carbohydrate intake (%) <sup>c</sup> | 2.6  | 7.6           | 8.4           | 10.3          | 16.9          |
| Age (years)                              | 37.7(4.7)  | 37.7(4.7)     | 37.8(4.6)     | 37.8(4.8)     | 38.8(4.9)     |
| Age at first birth (year)                | 27.2(4.8)  | 27.6(4.8)     | 27.6(4.6)     | 27.6(4.9)     | 27.7(5.0)     |
| Parity >1 (%)                            | 81.9   | 79.7          | 80.6          | 81.6          | 80.4          |
| Race, white (%)                          | 90.6   | 89.0          | 92.4          | 93.9          | 95.1          |
| Family history of diabetes (%)           | 27.1   | 29.4          | 26.2          | 28.2          | 26.6          |
| Current oral contraceptives use (%)      | 8.8  | 8.0           | 9.6           | 7.4           | 9.4           |
| Current smoking (%)                      | 10.6   | 10.3          | 9.2           | 10.9          | 12.0          |
| Alcohol (g/d)                            | 1.3(3.0)   | 2.0(4.6)      | 2.6(5.0)      | 2.8(5.1)      | 2.6(4.7)      |
| BMI (kg/m <sup>2</sup> )                 | 26.8(6.2)  | 26.9(6.2)     | 26.8(5.9)     | 27.0(6.0)     | 27.0(6.5)     |
| Physical activity (MET-hours/week)       | 17.6(23.7)   | 16.7(22.0)    | 18.4(22.2)    | 15.8(17.4)    | 16.8(20.7)    |
| Total calories (kcal/d)                  | 1999.7(579.3)                                      | 1921.7(572.8) | 1926.6(557.2) | 1881.2(544.4) | 1875.8(553.7) |
| Carbohydrates (% energy)                 | 54.3(7.2)  | 50.6(7.3)     | 49.3(6.5)     | 48.2(7.0)     | 46.2(6.9)     |
| Total protein (% energy)                 | 18.4(3.8)  | 19.8(3.5)     | 19.7(3.3)     | 19.4(3.2)     | 19.4(3.1)     |
| Animal protein (% energy)                | 14.0(3.8)  | 14.8(3.7)     | 14.5(3.6)     | 14.2(3.6)     | 13.8(3.6)     |
| Vegetable protein (% energy)             | 4.4(0.9)   | 5.0(1.1)      | 5.1(1.0)      | 5.3(1.1)      | 5.6(1.3)      |
| Total fat (% energy)                     | 28.6(5.1)  | 30.6(5.5)     | 31.8(5.0)     | 33.1(5.3)     | 35.3(5.8)     |
| Animal fat (% energy)                    | 17.6(4.5)  | 18.4(5.2)     | 18.0(4.5)     | 18.2(4.7)     | 17.7(4.8)     |
| Vegetable fat (% energy)                 | 11.0(2.9)  | 12.2(3.0)     | 13.7(3.1)     | 15.0(3.5)     | 17.5(4.5)     |
| SFA (% energy)                           | 10.5(2.4)  | 11.1(2.6)     | 11.2(2.3)     | 11.5(2.4)     | 11.8(2.5)     |
| MUFA (% energy)                          | 10.8(2.1)  | 11.6(2.3)     | 12.2(2.1)     | 12.7(2.3)     | 13.8(2.8)     |
| PUFA (% energy)                          | 4.6(1.0)   | 5.1(1.0)      | 5.6(1.1)      | 5.9(1.3)      | 6.6(1.6)      |
| <i>Trans</i> fat (% energy)              | 1.5(0.5)   | 1.6(0.5)      | 1.6(0.5)      | 1.7(0.6)      | 1.8(0.7)      |
| Cholesterol (mg/d) <sup>d</sup>          | 236.9(68.7)  | 249.4(69.4)   | 249.1(66.0)   | 246.0(66.3)   | 249.5(74.3)   |
| Total fiber (g/d) <sup>d</sup>           | 16.2(4.5)  | 18.3(5.6)     | 18.6(4.9)     | 18.9(5.3)     | 19.3(5.1)     |
| Glycemic index <sup>d</sup>              | 54.7(3.4)  | 53.9(3.2)     | 53.8(3.1)     | 53.7(3.1)     | 53.0(3.6)     |
| Glycemic load <sup>d</sup>               | 133.5(22.1)  | 122.9(20.5)   | 119.3(18.5)   | 116.6(19.5)   | 110.5(19.3)   |
| Heme iron (mg/d) <sup>d</sup>            | 1.1(0.4)   | 1.2(0.4)      | 1.2(0.4)      | 1.2(0.4)      | 1.1(0.4)      |
| Red meat (servings/d)                    | 1.1(0.6)   | 1.1(0.7)      | 1.1(0.7)      | 1.0(0.7)      | 1.0(0.6)      |
| Poultry (servings/d)                     | 0.4(0.3)   | 0.5(0.3)      | 0.5(0.3)      | 0.5(0.3)      | 0.5(0.3)      |
| Fish (servings/d)                        | 0.2(0.2)   | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.2)      |
| Eggs (servings/d)                        | 0.2(0.2)   | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.2)      | 0.2(0.3)      |
| Dairy (servings/d)                       | 3.0(2.1)   | 3.0(2.1)      | 2.9(2.3)      | 2.7(2.1)      | 2.6(2.2)      |
| Fruits (servings/d)                      | 1.2(0.9)   | 1.3(1.0)      | 1.3(0.9)      | 1.2(1.0)      | 1.1(0.8)      |
| Vegetables (servings/d)                  | 3.0(1.7)   | 3.5(2.1)      | 3.6(2.1)      | 3.7(2.2)      | 3.9(2.2)      |
| Nuts (servings/d)                        | 0.2(0.2)   | 0.2(0.3)      | 0.3(0.3)      | 0.3(0.3)      | 0.5(0.6)      |
| Legumes (servings/d)                     | 0.4(0.3)   | 0.4(0.3)      | 0.4(0.3)      | 0.4(0.4)      | 0.4(0.3)      |
| Whole grains (servings/d)                | 0.9(0.8)   | 1.0(0.9)      | 1.1(1.0)      | 1.2(1.1)      | 1.2(1.1)      |
| SSBs (servings/d)                        | 1.3(1.4)   | 0.5(0.8)      | 0.3(0.6)      | 0.2(0.4)      | 0.2(0.3)      |

Abbreviations: BMI, body mass index; GDM, gestational diabetes mellitus; MET, metabolic equivalent task; MUFA, monounsaturated fatty acids; PUFA, polyunsaturated fatty acids; Q, quintile; SFA, saturated fatty acids; SSBs, sugar-sweetened beverages.

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<sup>c</sup> Defined as carbohydrate intake < 40% of energy.

<sup>d</sup> Value is energy-adjusted.

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All comparisons across quintiles are significant except the following: age at first birth, multiparity (parity >1), family history of diabetes, current oral contraceptives use, current smoking, BMI, physical activity, and egg consumption.